

Part I. PANELING TOOLS

01. “Target” Surface creation

Create a surface of interest for one of your elements.

02. Point Grids

To “panelize” the surface (Step 01. “Target” Surface creation) you will first need to create point grids. Use the surface/s created in step 01 and experiment with different grid options.

Go to **Paneling Tools > Create Paneling Grid > Surface Domain Number** and select your surface.

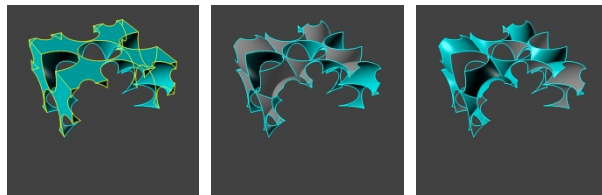
Go to **Paneling Tools > Create Paneling Grid > Surface Domain Variable** and create a grid based on curve attractor.

Go to **Paneling Tools > Create Paneling Grid > Surface Domain Variable** and create a grid based on point attractor.

Indicate all these different options with dots text

03. Custom 3d Object

- Take one or more of your architectural elements studies and make sure that is one polysurface (join if needed). If you choose a study / outcome of your boolean operations with a boxy containment delete the boundaries: Use the **extractSrf** command to extract unwanted surfaces. **Join** the surfaces you want to keep in one polysurface. You may find that your polysurface is “inside-out” – use the **dir** command to flip the surface normals:



04. 3D Paneling from grid

Select one of the grids and surface experiments from step 02.

Go to **Paneling Tools > Grid Utility> Offset Points** and offset your points with distance method Fixed.

To populate the point grids with your **Custom 3d Object**, go to **Paneling Tools > Paneling from Grid > Panel Custom 3d**.

When you are asked for 2 bounding surfaces press Enter for none.

When you are asked to select objects do not select your entire polysurface array – just select one polysurface.

Rhino will preview the adjacencies of the panelling, then press Enter to accept.

Go to **Paneling Tools > Paneling from Grid > Panel Custom 3d Variable** and experiment more with attractor points or curves and more than one Population Polysurfaces.

Apply paneling to your bustling vacancy project.

- Use rhino_panelling tools (or other commands that will result in repetition) to create 9 more

elements studies (3 per element). Experiment also with 2d Paneling till you end up in interesting elements compositions.

- **Illustrate axonometric (isometric or oblique planar) diagrams** of the above Rhino studies as you have been doing so far.
- Create **Vray Rhino Renderings** of eye level perspective CRITICAL views for these studies. Do not forget the renderings should convey spatial characteristics of your studies.

Tutorials

Uploaded on blackboard under tutorials:

Rhino_Panelling Tools Introduction, 2D, 3D, & Rhino_Flow along surface

<http://vimeo.com/41750189>, <http://vimeo.com/41746439>, <http://vimeo.com/41824236>

Part II. CITY DATA

Read once again carefully the Bustling Vacancy Project uploaded on Blackboard under Contents / Integration Project_Bustling Vacancy / Integration Project Description. We are gradually moving towards the second part of the project (Data Analysis). **Research and select the** two maps you will be working with and bring them in class next week as a group. Look carefully at the following data resources. You will ultimately assemble and visualize patterns of noise, circulation, city behaviors, programmatic uses etc.:

Noise: water fountains, fire houses, traffic, etc.

Circulation: metro entrances, traffic etc.

Visual patterns: buildings set back, urban walls façade patterning, solid/void, height restrictions etc.

Behavioral patterns: entertainment, consumerism, culture, universities, urban density, city growth.

Resources:

google maps

<https://nycopendata.socrata.com/>

<http://nyc.pediacities.com/Nycopedia>

wirednewyork forum: <http://wirednewyork.com/forum/>

Find **references** on Blackboard under Contents / Integration Project _ Bustling Vacancy / Mapping References_Pattern Generation.

Read:

<http://www.thehumanitarianspace.com/>

http://www.6under60.com/category/almere/urban_patterns-almere/

<http://vimeo.com/42757418>

SUBMISSION

Due Date: 2:00 pm Friday, March 14th. Please upload on blackboard as group:

01. Two selected city data maps (any file format is acceptable).

02. Rhino file/s with the latest 9 elements studies.

02. A pdf file with of the above studies Illustrated.

03. A Pdf file of your Bustling Vacancy Studies in the given Indesign Template, 22"by36" updated with all 10 studies per element (axo diagrams and vray renderings) as well as the selected city data maps placed accordingly.